William Hardee

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Education

University of Colorado Boulder — Boulder, CO
Bachelor of Science in Computer Science, Minor in Statistics — *Aug. 2022 – May 2026*

GPA: 3.95/4

Technical Skills

Languages: Python, C/C++, SQL (Postgres, mySQL), JavaScript, HTML/CSS
Frameworks: React, Node.js, ROS2
Developer Tools: Git, Docker, Linux

Relevant Coursework

- CSCI 2240: Database Systems
- CSCI 3308: Software Development and Tools
- CSCI 2820: Linear Algebra
- CSCI 2824: Discrete Structures
- CSCI 2270: Data Structures
- CSCI 3104: Algorithms

Experience

Software Developer — September 2023 – Present
RoboSub — *Boulder, CO*

- Developed software using ROS2 in Python and C++ for a teleoperated robotic submarine.
- Built a photogrammetry pipeline in Python utilizing the CLI interfaces of Colmap and OpenMVS.
- Implemented a YOLO-based machine learning model in Python for underwater object detection.
- Collaborated with interdisciplinary engineering teams to design and develop the submarine, ensuring alignment with project goals and deadlines.
- Managed code integration from multiple developers using Git for version control.

Bank Teller — May 2023 – July 2023
PNC — *Greenbelt, MD*

- Expected to accurately process transactions of up to 15,000 dollars in an efficient and extremely accurate manner.
- Precise attention to detail allowed me to catch fraudulent behavior and be defrauded zero times.
- Worked in a team with 3 other tellers to resolve any complications ranging from software to transactional issues.

Projects

MovieMaster | *JavaScript, NodeJS, ExpressJS, PostgreSQL, Docker, Git* — March 2024 – May 2024

- Spearheaded the development of an interactive website for movie enthusiasts, enabling users to create accounts, browse, review, like, and comment on movies.
- Developed ExpressJS routes to facilitate seamless connection between the front end website and the backend PostgreSQL database.
- Designed and implemented schema for a PostgreSQL database to store information on thousands of movies.
- Used bootstrap to build frontend.
- Used an omdb API to pull information on movies

Chat App | *C++, Sockets, Git* — December 2023 – January 2024

- Developed a server using raw sockets in C++ capable of handling over ten thousand concurrent clients.
- Implemented multithreading with semaphores to ensure thread safety and efficient resource management.
- Enabled users to create rooms, join existing rooms, and send messages to other clients within the same room.

Dynamic Memory Allocator | *C* — April 2023 – May 2023

- Developed and optimized a dynamic memory allocator using explicit free lists, significantly enhancing allocation efficiency while minimizing collisions and memory fragmentation.